1. (Currently amended) Hydrogel that changes its shape and volume in response to change in pH and in response to change in temperature, formed by photocrosslinking of dextran-maleic acid monoester and N-isopropylacrylamide in a composition comprising from 10 to 75% by weight dextran-maleic acid monoester and from 90 to 25% by weight N-isopropylacrylamide, with the total of the dextran maleic acid monoester and N-~~isopropyacrylamide~~isopropylacrylamide being 100%.

2. (Currently amended) The ~~method~~ hydrogel of Claim 1 which is formed by photocrosslinking dextran maleic acid monoester and N-isopropylacrylamide in a composition comprising from 20 to 65% by weight dextran-maleic acid monoester and from 80 to 35% by weight N-isopropylacrylamide.

3. (Original) The hydrogel of Claim 2 where the dextran-maleic acid monoester has an average degree of substitution ranging from 0.85 to 0.95 and a weight average molecular weight ranging from 65,000 to 75,000 on a dextran basis.

4. (Original) The hydrogel of Claim 3 which has a lower critical solution temperature which is less than or near body temperature.

5. (Original) A hydrogel forming system comprising a solution of from 10 to 75% by weight dextran-maleic acid monoester and from 90 to 25% by weight N-isopropylacrylamide based on the total of the dextran-maleic acid monoester and the N-isopropylacrylamide being 100%.